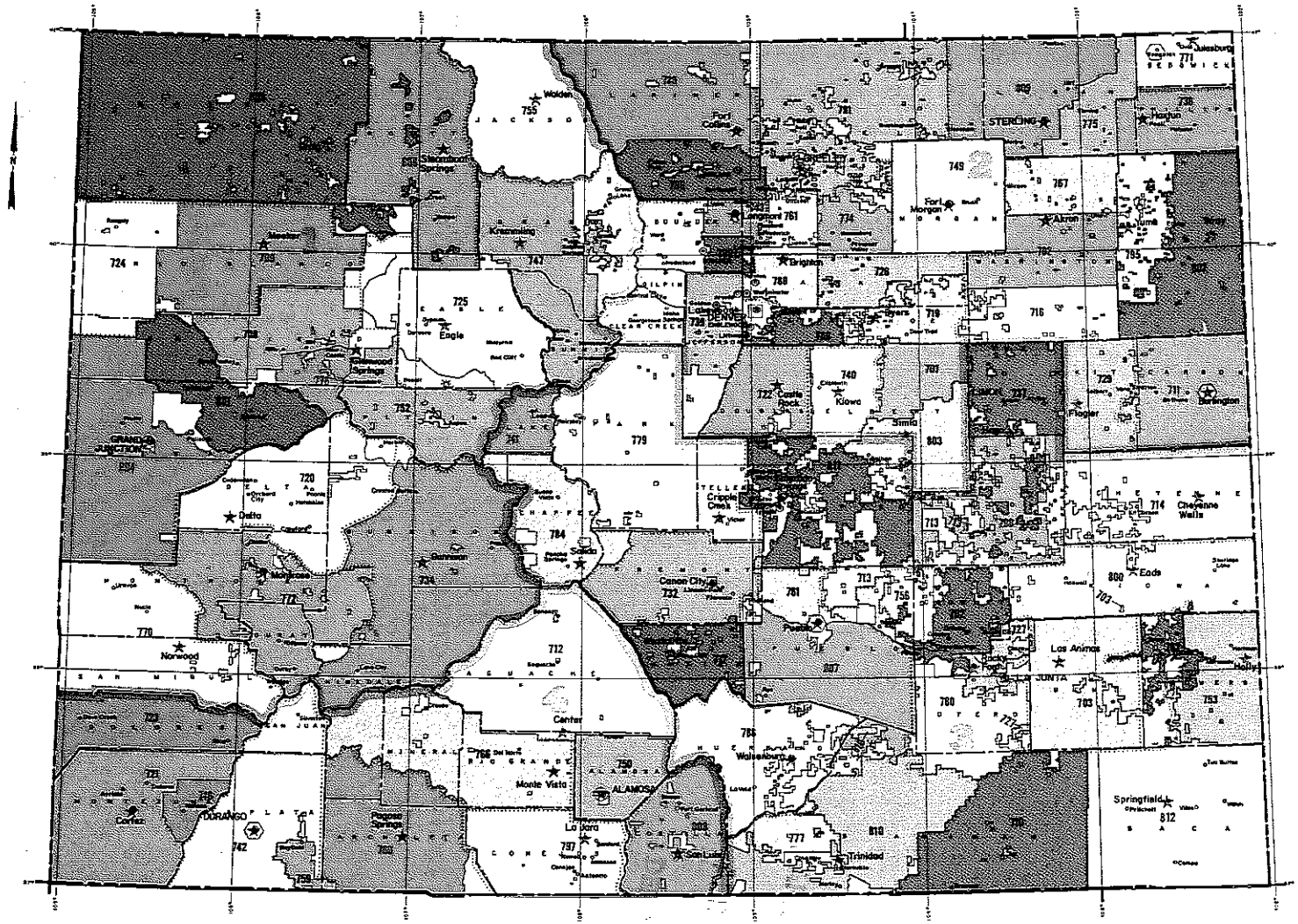
U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE



AREA 1 - GRAND JUNCTION

Field Office	SCD No.	SCD
Craig	805	Colorado First
Delta	720	Delta
Eagle	725	Eagle County
Glenwood Springs	708	Bookcliff
	752	Mt. Sopris
	776	South Side
Grand Junction	801	De Beque-Plateau Valley
	804	Mesa
Gunnison	734	Gunnison
Kremmling	747	Middle Park
Meeker	724	Douglas Creek
	799	White River
Montrose	772	Shavano
Norwood	770	San Miguel Basin
Steamboat Springs	806	Routt County
Walden	755	North Park

AREA 2 - GREELEY

Akron	702	Akron
	716	Cope
	767	Rock Creek
Brighton	761	Platte Valley
	774	Southeast Weld
	788	West Adams
Burlington	711	Burlington
Byers	719	Deertrail
	726	East Adams
Castle Rock	722	Douglas County
Flagler	729	Flagler
Fort Collins	706	Big Thompson
	730	Fort Collins
Fort Morgan	749	Morgan
Greeley	791	West Greeley
Haxtun	736	Haxtun
Julesburg	771	Sedgwick County
Kiowa	740	Kiowa
Lakewood	739	Jefferson
	789	West Arapahoe
Longmont	709	Boulder Valley
	743	Longmont
Simla	701	Agate
	803	Double El
Sterling	775	South Platte
	809	Centennial
Wray	807	Yuma County
Yuma	795	Yuma

Ogallala Water Management Office, Burlington

Sedgwick Watershed Office, Sedgwick

AREA 3 - LA JUNTA

Canon City	732	Fremont
Cheyenne Wells	714	Cheyenne
Colorado Springs	713	Central Colorado
	811	El Paso County
Cripple Creek	779	Teller-Park
Eads	800	Kiowa County
Holly	753	Northeast Prowers
Hugo	737	High Plains
	798	Prairie
Lamar	762	Prowers
Las Animas	703	Bent
Pueblo	701	Turkey Creek
	807	South Pueblo County
Rocky Ford	727	East Otero
	756	Olney-Boone
	780	Timpas
	792	West Otero
Salida	741	Lake County
	784	Upper Arkansas
Springfield	812	Baca County
Trinidad	710	Branson-Trinchera
	777	Spanish Peaks
	810	Purgatoire River
Walsenburg	786	Upper Huerfano
Westcliffe	717	Custer County-Divide

East Central Colorado and Sangre de Cristo RC&D Office, Pueblo

AREA 4 - ALAMOSA

Alamosa	750	Mosca-Hooper
Center	712	Center
Cortez	721	Dolores
	723	Dove Creek
	746	Mancos
Durango	742	La Plata
	759	Pine River
La Jara	797	Conejos
Monte Vista	766	Rio Grande
Pagosa Springs	769	San Juan
San Luis	808	Costilla

San Juan and San Luis Valley RC&D Office, Durango

LEGEND

- 784 SOIL CONSERVATION DISTRICT AND NUMBER
- SCS AREA BOUNDARY AND NUMBER
- SCS FIELD OFFICE BOUNDARY
- SCS STATE OFFICE
- AREA OFFICE
- SCS FIELD OFFICE
- SCS PROJECT OFFICE

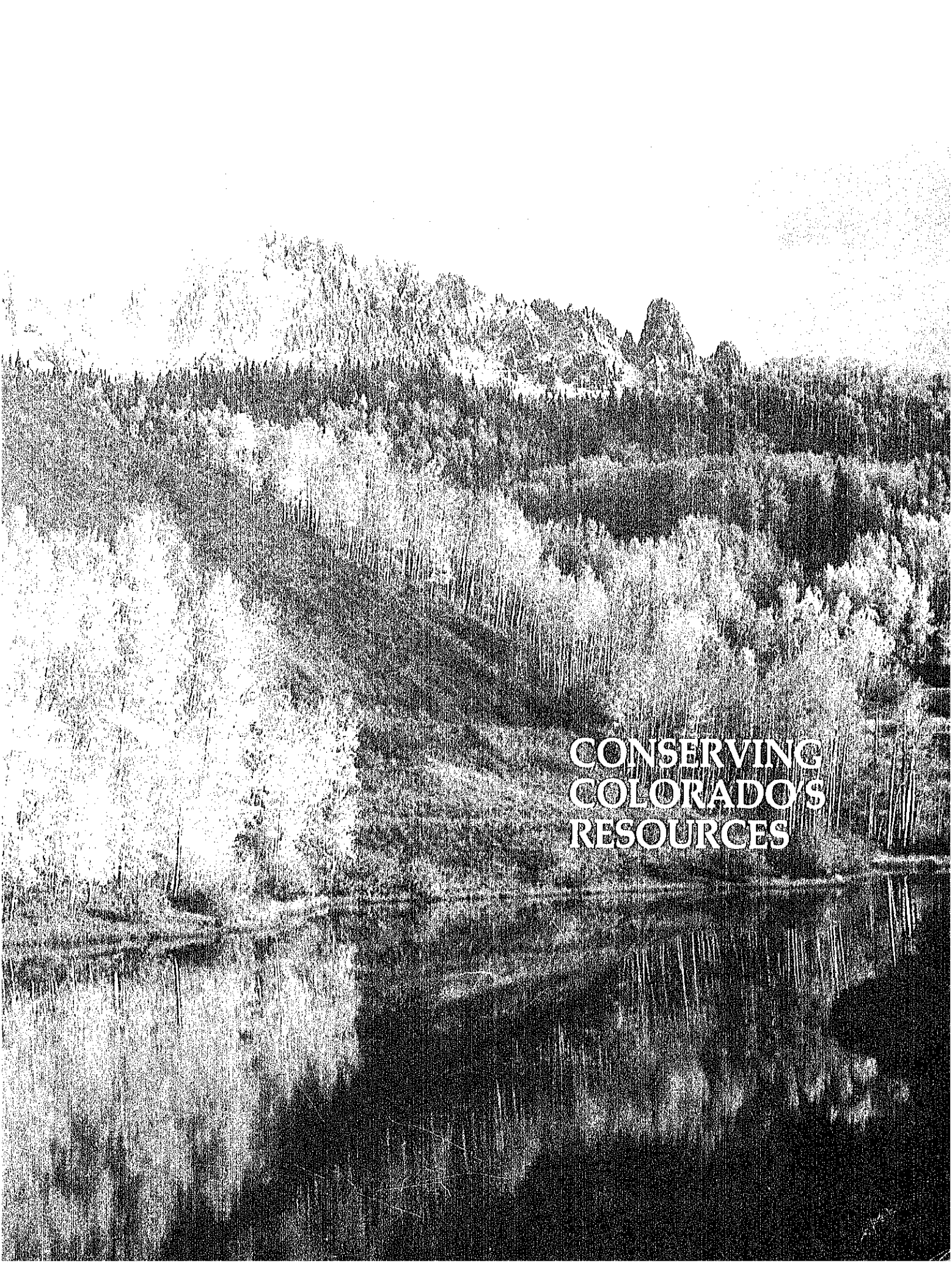
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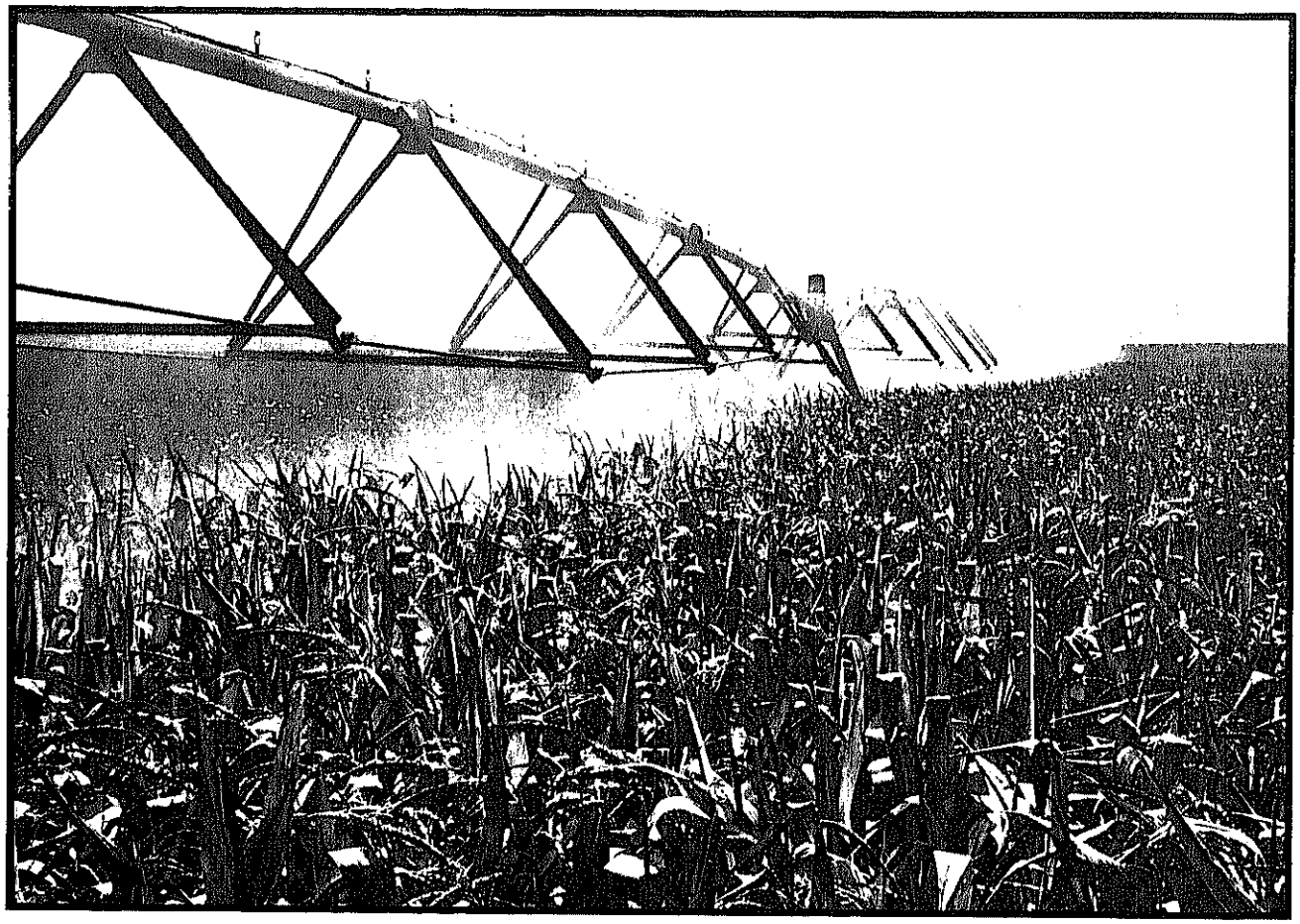
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SOURCE: Data compiled by SCS Field Personnel.

SOIL CONSERVATION SERVICE ADMINISTRATIVE OFFICES
SOIL CONSERVATION DISTRICTS
COLORADO
JANUARY 1987

REVISED FEBRUARY 1987 M7-PL-22014


CONSERVING
COLORADO'S
RESOURCES



STATE CONSERVATIONIST'S REPORT

As more farmers, ranchers and others become aware of the importance of sound soil and water conservation practices in achieving and maintaining a quality environment, greater demands are placed on the Soil Conservation Service (SCS), soil conservation districts and cooperating organizations. The need to identify the impacts of soil and water conservation practices on water quality in agricultural areas is recognized. A review of our technical standards as they relate specifically to water quality and water conservation is an initial step to improving the value of our assistance to land and water users.

These concerns coming at the time of peak SCS involvement in the Food Security Act assure a busy and challenging conservation program in Colorado as we move into the 1990s. SCS, together with soil conservation districts, needs to review local conservation program requirements and place high priority on those plans and practices that address major national issues as well as important local conservation concerns.

In 1989 we will be giving specific attention to the following activities as we prepare to effectively implement soil and water conservation programs in the 1990s.

- Completing conservation compliance plans by January 1, 1990 for all farmers wishing to participate in USDA programs.
- Ensuring that all farmers wishing to participate in the Conservation Reserve Program (CRP) have sound reseeding plans.
- Reviewing Field Office Technical Guides (FOTGs) to be sure they contain up-to-date standards for water quality improvement.
- Cooperating with the Extension Service, the Environmental Protection Agency and others to implement conservation plans that adequately address water quality and water quality concerns.
- With Colorado soil conservation districts, reviewing the continuing need for the Great Plains Conservation Program to the year 2000.
- Addressing the training needs of SCS employees to enable us to provide high quality technical assistance.
- Improving opportunities for minorities and women to have meaningful careers in SCS.

Sheldon G. Boone

Sheldon G. Boone
State Conservationist, Colorado

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January 1989

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CREDITS

Cover Photo: H. Eugene Alexander
Color Illustration: Charles Branum
Text: Jerry Schwien, John Plain, Lorraine Peavy, Carol Sirko and Dan Parker

All programs of U.S. Department of Agriculture are available to anyone without regard to race, color, sex, age, handicap, or national origin.

COLORADO'S SOIL AND WATER RESOURCES

Colorado's total land and water area encompasses just over 66 million acres. Approximately two-fifths (25 million acres) is pasture and range. One-sixth (10.5 million acres) is in cropland. Forests make up another one-third of the state (22 million acres).

Colorado enjoys some 1.5 million acres of prime farmland. These best irrigated lands produce the most food and fiber for the least cost and with minimal erosion losses. Unfortunately, much of Colorado's cropland is erosive. It erodes at an average rate of 11.5 tons per year — 2 to 3 times the rate at which our soils replenish themselves. Many of our soils are classified as highly erodible by SCS standards.

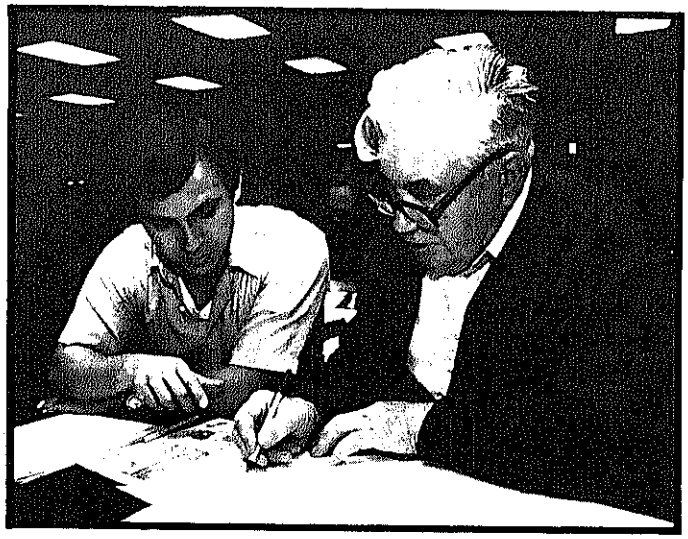
Colorado's water resources originate for the most part from mountain snowpack and from the headwaters of five major rivers: the Arkansas, Colorado, South Platte, North Platte and Rio Grande. The average water available in these five basins is approximately 15 million acre-feet annually.

Irrigation is of vital importance to Colorado agriculture, with some 4.5 million acres of cropland, pasture and hay being irrigated. Groundwater sources of most importance are in the San Luis Valley, along the South Platte River, and from the Ogallala aquifer along the eastern boundary of Colorado. Interstate and international compacts require Colorado to share water originating here, with 9 other states and Mexico.





THE FARM BILL AT WORK IN COLORADO







The Farm Bill radically changed the relationship between farmer and Federal Government when it was enacted in 1985. For the first time a bill was passed requiring conservation compliance in order for farmers to continue to receive USDA program benefits. The bill calls for farmers who crop highly erodible land to have a conservation plan by 1990. That year is almost upon us.

Since enactment of the bill the Soil Conse vation Service in Colorado has beefed up it's manp/wer to write the necessary conservation plans for the state's 30,000 cooperators.

According to the statewide computerized records to date, Colorado is ahead of the national average in conservation plans written. Out of the state's 8.7 million highly erodible acres to be planned, six million acres now have a conservation plan. This is 69 percent of the highly erodible land to be planned in the state. The conservation plans agreed to by landowners must be fully installed by 1995.

By the end of 1988, 1.1 million acres of Colorado land will have been planted in grasses under the Conservation Reserve Program. An additional 600,000 acres will be planted in the next 2 years. Eighty percent of these plantings are in native grasses. Fifteen counties have reached their 25% acreage limit.

Provisions of the Farm Bill are categorized in a Conservation Reserve to help farmers retire highly erodible cropland into permanent grasses, trees or wildlife plantings; a Conservation Compliance to help farmers develop and apply a locally approved conservation plan; a Sodbuster requirement to help farmers develop a conservation plan on highly erodible lands that were sodbusted after December 1985 and a Swampbuster requirement to help farmers develop a conservation plan on naturally occuring wetlands, which are converted to tilled croplands.

In a recent USDA survey conducted by the Soil and Water Conservation Society, 74% of the county-level USDA program administrators said that most farmers accept the idea that they should be required to conserve soil in return for farm payment and loans from the federal government. Eighty seven percent of those surveyed said the implementation of the conservation provisions to date have been successful. Two thirds of the respondents said most farmers will have conservation plans by the 1990 deadline. The Colorado experience reflects these findings.

A CLEAR LOOK AT WATER QUALITY

Water can no longer be taken for granted. Without abundant, clean irrigation water, Colorado's agriculture will be drastically changed. The quality Colorado-grown produce we are accustomed to will vanish. Cities and suburbs will no longer be lavishly landscaped; and the worst scenario of all would be a dry water tap.

That's what is happening in some agricultural circles. Cities are buying up agricultural water. What happens to irrigated croplands when it is drained of water rights — sold to cities for urban use? Soil conservationists and Soil Conservation District supervisors in southeastern Colorado are educating farmers on the precious process of returning 100-year irrigated land back to native vegetation after it has been left devoid of water.

Test plots and demonstration sites have been established at Rocky Ford to provide information on seeding and drilling of native grasses. Farmers are being encouraged to slowly return this land back to grass. The City of Aurora is cooperating with SCS and Districts by contributing funds for this project. If irrigation water is drying up, the lands must be seeded to a productive grass to stabilize the economy and protect against another dust-bowl.

In northeastern Colorado the water problem is a little different. Northeastern Colorado farmers are dependent on an underground reservoir termed the Ogallala Aquifer for their irrigation water. This area is considered one of the more productive corn and wheat growing areas in the country. In 1983, studies showed the Ogallala Aquifer was being drained for irrigation wells, at a rate that greatly exceeded the aquifer recharge.

At that time it was estimated that by the year 2020, 40 percent of the irrigated land in the aquifer area would no longer be irrigated.

Today, however, the negative projections seem to be slowing. Because of a very accelerated effort by soil conservationists and other specialists, the Ogallala appears to be maintaining at its current level.

Studies show that when water is readily available, irrigators apply approximately 30 percent more water than the crop requires.

Irrigation Water Management is the buzz phrase currently used to describe an overall management program to combat inefficient use of precious water.

SCS and Soil Conservation Districts are working with landowners on well tests, gypsum block studies and many other irrigation water management tools such as tensiometers, soil probes, and E.T. data. Farmers in the Ogallala area are experiencing as much as a $10,000 per year decrease in pumping costs, and often times yield increases as well, as a result of a combination of irrigation water management and different scheduling methods. Overwatering costs money, and often leaches important nutrients beyond the root zone. Water conservation pays in many ways.

In western Colorado the Colorado River carries 9 million tons of salt a year through its waters. One half of that salinity concentration is due to irrigation.

Cropland runoff, seepage, deep percolation and other forms of water loss carry salts, fertilizers and pesticides into our waterways. It is a situation which originates in rural areas and gains momentum as it reaches larger tributaries, damaging other irrigated areas, wildlife and finally cities and industry.

Increased salinity means less profit due to economic loss from poor crop yields, and increased labor and fertilizer costs due to nutrient loss through the soil.

Soils in the Grand Valley near Grand Junction are made up of Mancos shale, a marine shale containing sulfate, carbonate, nitrate and chloride salts. Salt dissolved from the shale is carried to surface drainage channels and the Colorado River through groundwater return flows or underground water channels.

In an effort to combat these problems, the Soil Conservation Service and ASCS are helping to line irrigation canals with concrete to reduce seepage losses. The SCS is providing technical assistance to help farmers level their fields for better water control, install buried distribution pipes and drip and sprinkler irrigation systems. ASCS helps with cost-share.

It is becoming more and more apparent that water pollution is not always caused by cities and industry. A great deal of the problems stem from agriculture.

Water covers 75 percent of the earth's surface, and all but 3 percent of this is sea water. Therefore, we must rely on that 3 percent to water animals, plants and people. Growing food uses more water than any other endeavor. It takes about 1.6 million gallons of water to feed one American each year.

We must all do our part to conserve water in Colorado.

COLORADO SOILS & GEOLOGY

Colorado — the mountain state — has 54 of the 80 highest peaks in North America making up the greatest group of mountains on the Continent outside of Alaska. Our mountain area is equal to six Switzerlands and its average altitude, 6,800 ft., is the highest in the nation.

Colorado has a little bit of everything — mountains, plains, prairies: no ocean. But did you know that at one time, about 500-750 million years ago, much of central Colorado was under an ocean. That is why it is still possible to dig up fossils that look like sea creatures.

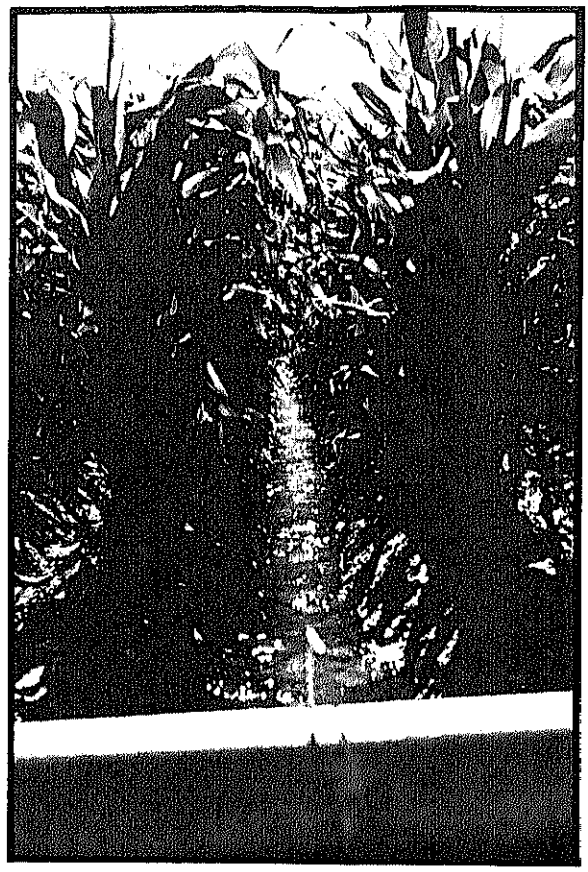
It is even possible to find ocean-life fossils in and around Colorado's plains. But the type usually found are large mammals such as the hairy mammoth bison and many small animals similar to what we have today.

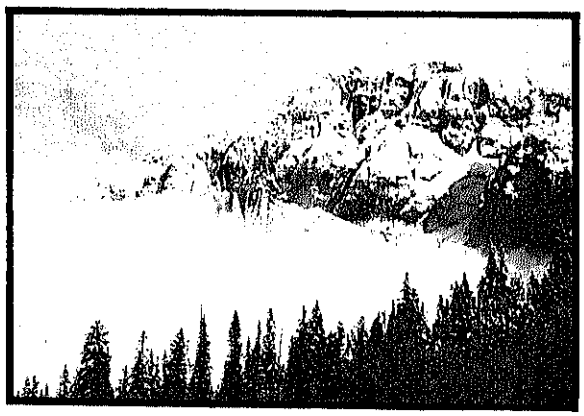
The Prairies

Beneath the flat prairie-land of eastern Colorado, sedimentary rocks (rocks made of pieces of other rocks) form layers. Those near the surface are the youngest rocks in Colorado.

The layers below — sandstone, shales and limestones become progressively older the deeper they go. They were originally formed on the bottom of the sea.

The sedimentary layers of the plains are 5000 to 10,000 feet thick. They lie on a flat surface of much older rock — "basement rock." These are the rocks of old mountains that were beveled to an almost flat surface. So most places the layers are horizontal, but as they approach the mountains, they bend up, gently at first, then more steeply. These are our mountains. Their eroded edges still show, that's why they're called Rocky Mountains.











The Peaks

Most of the Colorado mountain ranges are the result of movements within the crust as the entire region was pushed up from below. As the mountains formed they also began eroding. The sedimentary layers are completely stripped from the uplifts. It is these rocks which form the summits of the highest Colorado Peaks.

This working of the earth's crust was a slow process. The earth took a million years or so to stretch and wrinkle its skin.

The Plateaus

The western quarter of Colorado is a region of flat lying sedimentary rocks which have not been bent up into mountains, except in a few instances. This area lies more than a mile above sea level. The Colorado River and its tributaries have sliced into the plateau surface separating it into small table mesas.

The earth probably started as a huge blob of molten rock, shaped into a ball. It may have been gaseous at first, cooling gradually. After hundreds of millions of years it cooled and hardened. As the surface cooled a crust formed over the boiling mass. Underneath boiling movements stirred the molten interior and thrust portions of the crust upward and sucked other portions downward to be remelted.

Since the continents were formed, they have been bent and shifted and broken by the pressures within. The battle between forces that build mountains and the erosion which whittles them down has been continuous movement from within. Wind and water continue to erode away surface rock and soil.

Soils are dynamic mixtures, teeming with life. Bedrock is continually fractured, dissolved and changed into soil, but the process is so slow we do not notice it.

Soil is a mixture of mineral and organic ingredients, but the make up of soil changes from one location to another. The major soil ingredients are: 45 percent minerals, 25 percent water, 25 percent air and 5 percent organic matter.

The Ascalon soil is widespread on the eastern plains of Colorado. This soil occurs on gently rolling plains. The Ascalon soil is one of nearly 1100 soils occuring in Colorado.

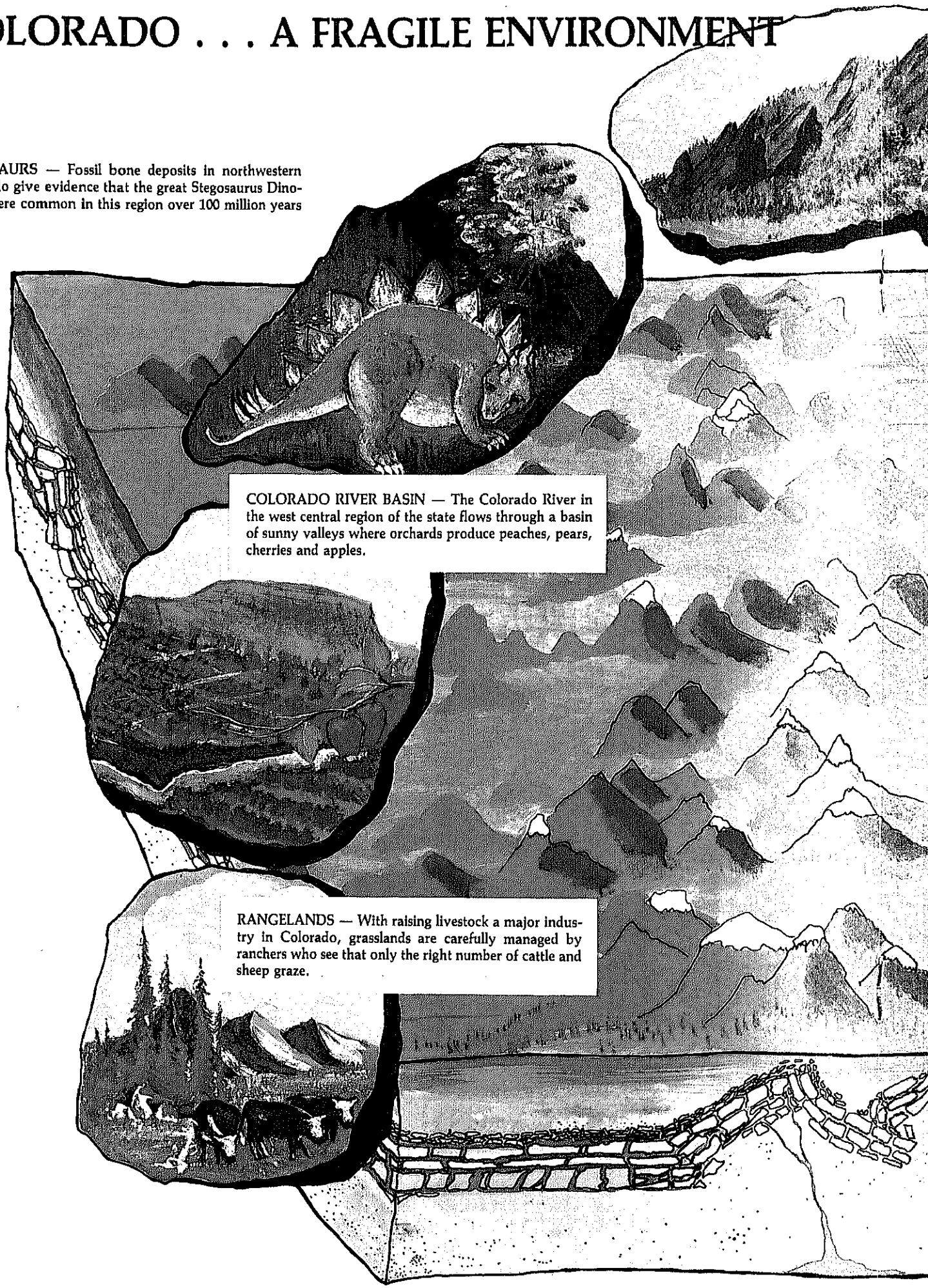
Soils are made of parent material. Parent material can be a volcanic deposit such as ash or it can be sediment that has been moved around by wind or water, or left by glaciers. This material breaks down even further by weather and temperature.

Colorado's first permanent settlers arrived here in 1858 when gold was discovered near Denver. The gold rush brought wealth to many. Several hundred mining "camps" sprang up almost overnight, their sites determined by the geology of the mountain areas.

For more than a hundred years Colorado's minerals — products of her long and diverse geologic history — have influenced development in many ways.

(continued on page 10)

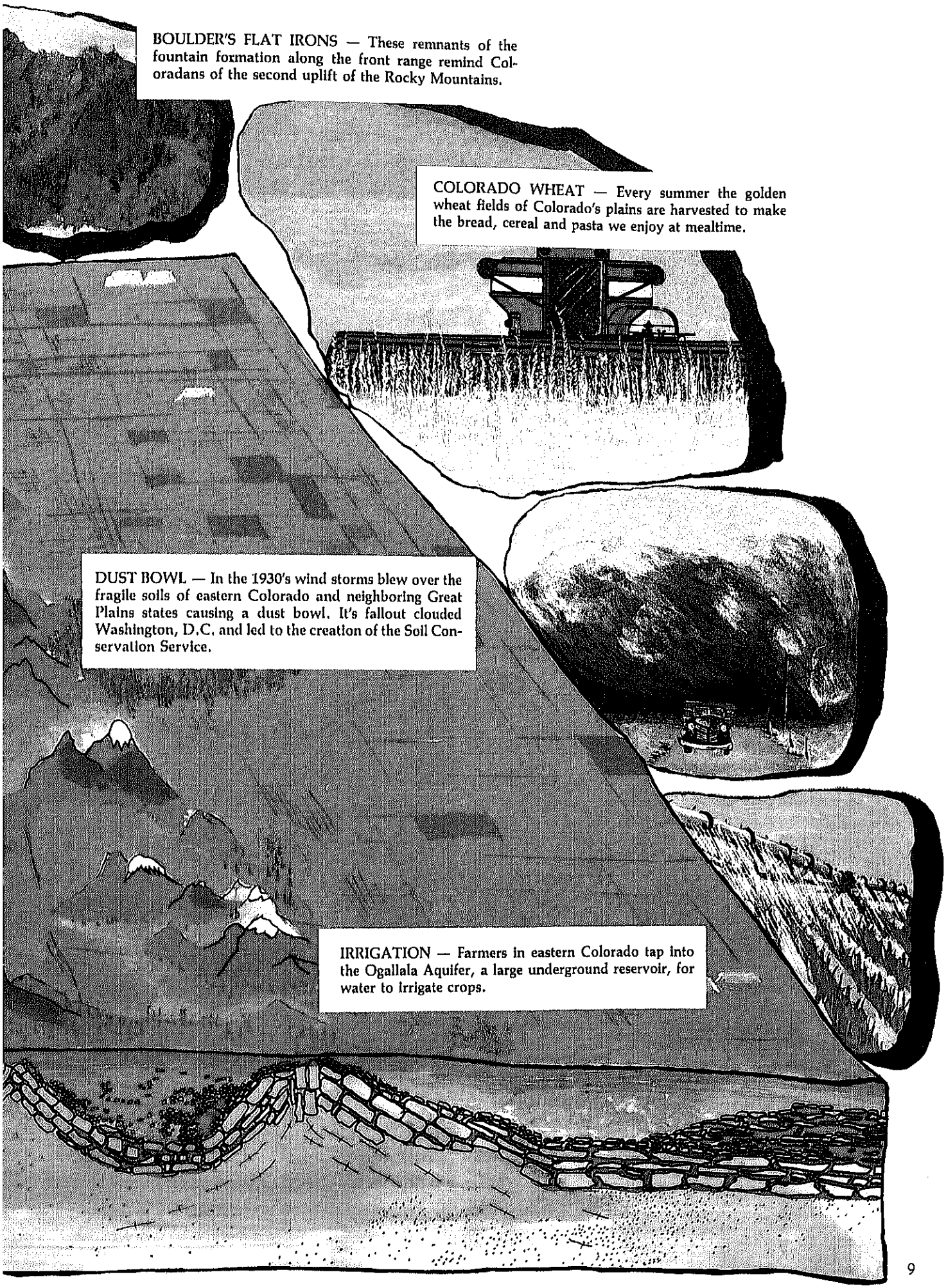
COLORADO . . . A FRAGILE ENVIRONMENT



DINOSAURS — Fossil bone deposits in northwestern Colorado give evidence that the great Stegosaurus Dinosaurs were common in this region over 100 million years ago.

COLORADO RIVER BASIN — The Colorado River in the west central region of the state flows through a basin of sunny valleys where orchards produce peaches, pears, cherries and apples.

RANGELANDS — With raising livestock a major industry in Colorado, grasslands are carefully managed by ranchers who see that only the right number of cattle and sheep graze.



BOULDER'S FLAT IRONS — These remnants of the fountain formation along the front range remind Coloradans of the second uplift of the Rocky Mountains.

COLORADO WHEAT — Every summer the golden wheat fields of Colorado's plains are harvested to make the bread, cereal and pasta we enjoy at mealtime.

DUST BOWL — In the 1930's wind storms blew over the fragile soils of eastern Colorado and neighboring Great Plains states causing a dust bowl. It's fallout clouded Washington, D.C. and led to the creation of the Soil Conservation Service.

IRRIGATION — Farmers in eastern Colorado tap into the Ogallala Aquifer, a large underground reservoir, for water to irrigate crops.

(continued from page 7)

Colorado Agriculture

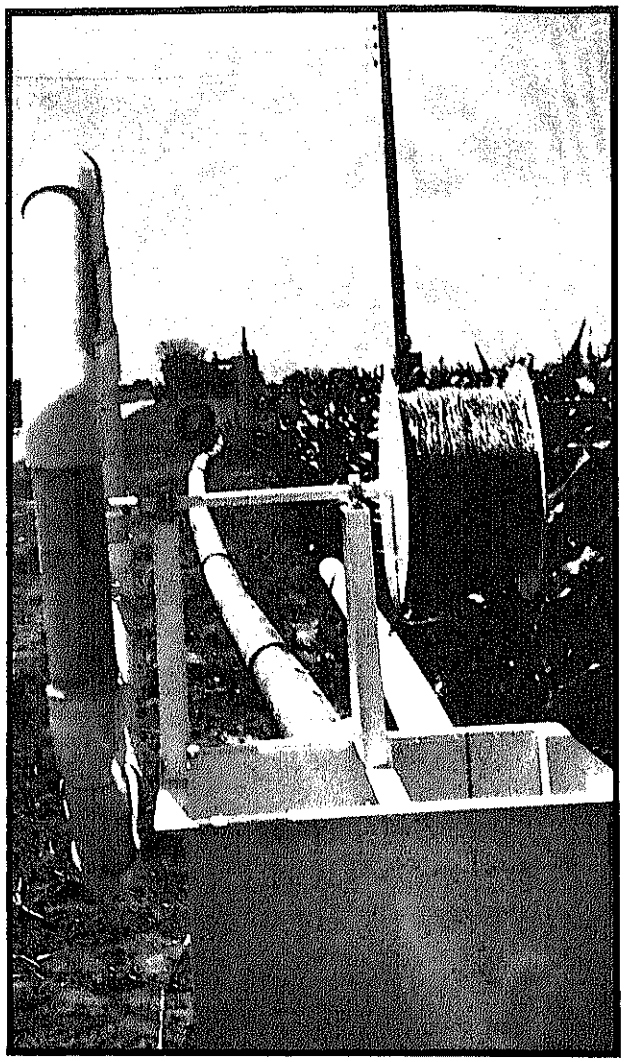
Agriculture took hold in the late 1800s and early 1900s across Colorado's front range. Settlers moved in and purchased large amounts of land that was not necessarily suited for farming. Wind storms kicked up topsoil, carrying it across the Great Plains in large black clouds, thus the Dust Bowl was born. In the late thirties conservation practices like stubble mulching, strip cropping and tree windbreaks were beginning to be applied to save precious soil and protect crops.

The Colorado River provides irrigation water for cherry, apple, peach and apricot orchards. The river and tributaries that cut flat mesas across the western slope also created an almost perfect, moist environment for fruit.

In Eastern Colorado a good portion became irrigated as farmers began tapping into the Ogallala Aquifer, a large underground reservoir which ranges in depth from a few feet to more than 1,000 feet. At its widest it is more than 400 miles across. States pumping water from the Ogallala are: Wyoming, South Dakota, Nebraska, Kansas, New Mexico, Oklahoma, Texas and Colorado.

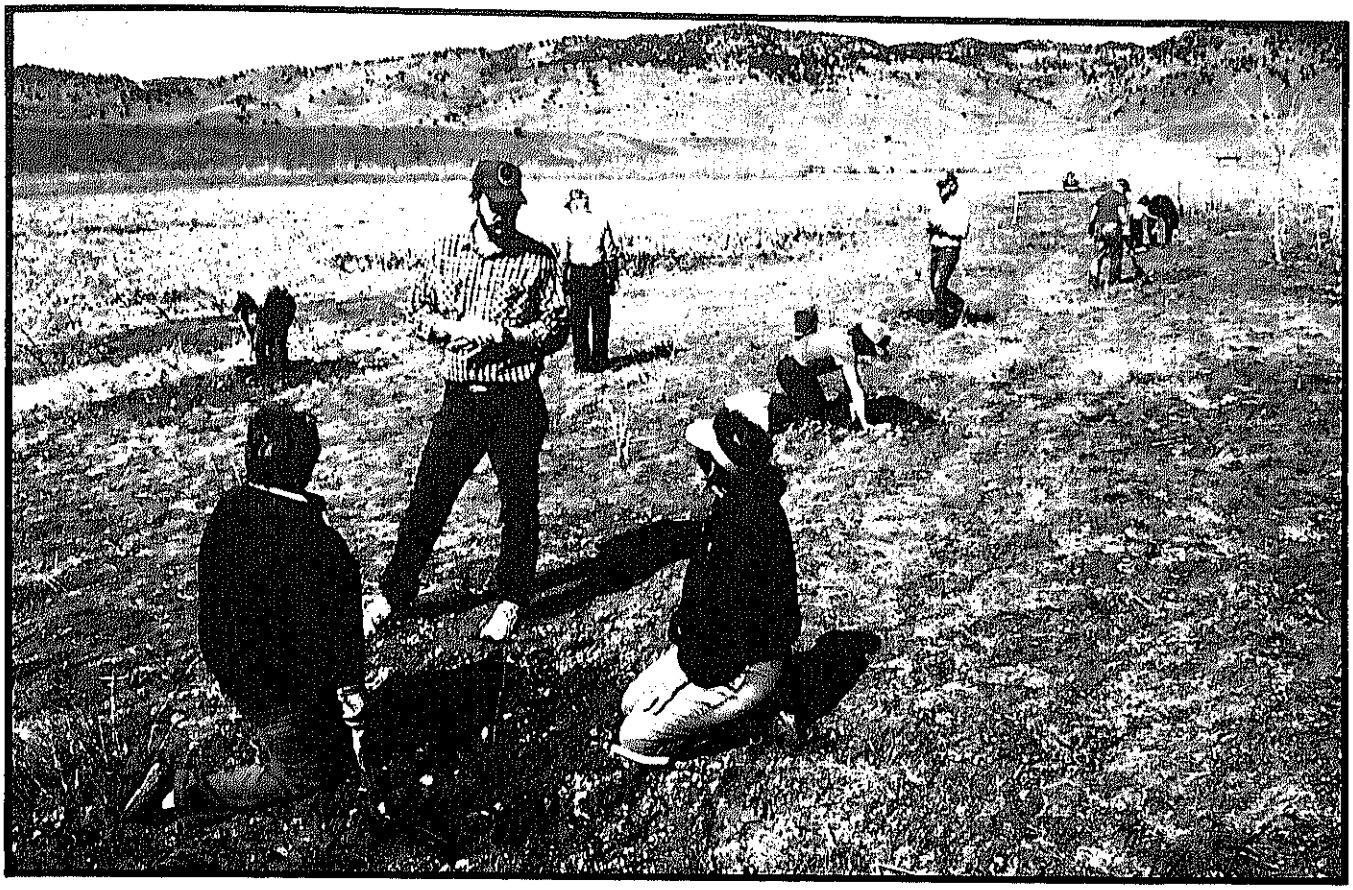
The Ogallala was formed long ago, but it continues to provide water to over 12 million acres of irrigated land.

Colorado's geologic history is an interesting one. It has shaped our soil and water resources and continues to influence Colorado agriculture today.





COLORADO VOLUNTEERS FOR EARTH TEAM



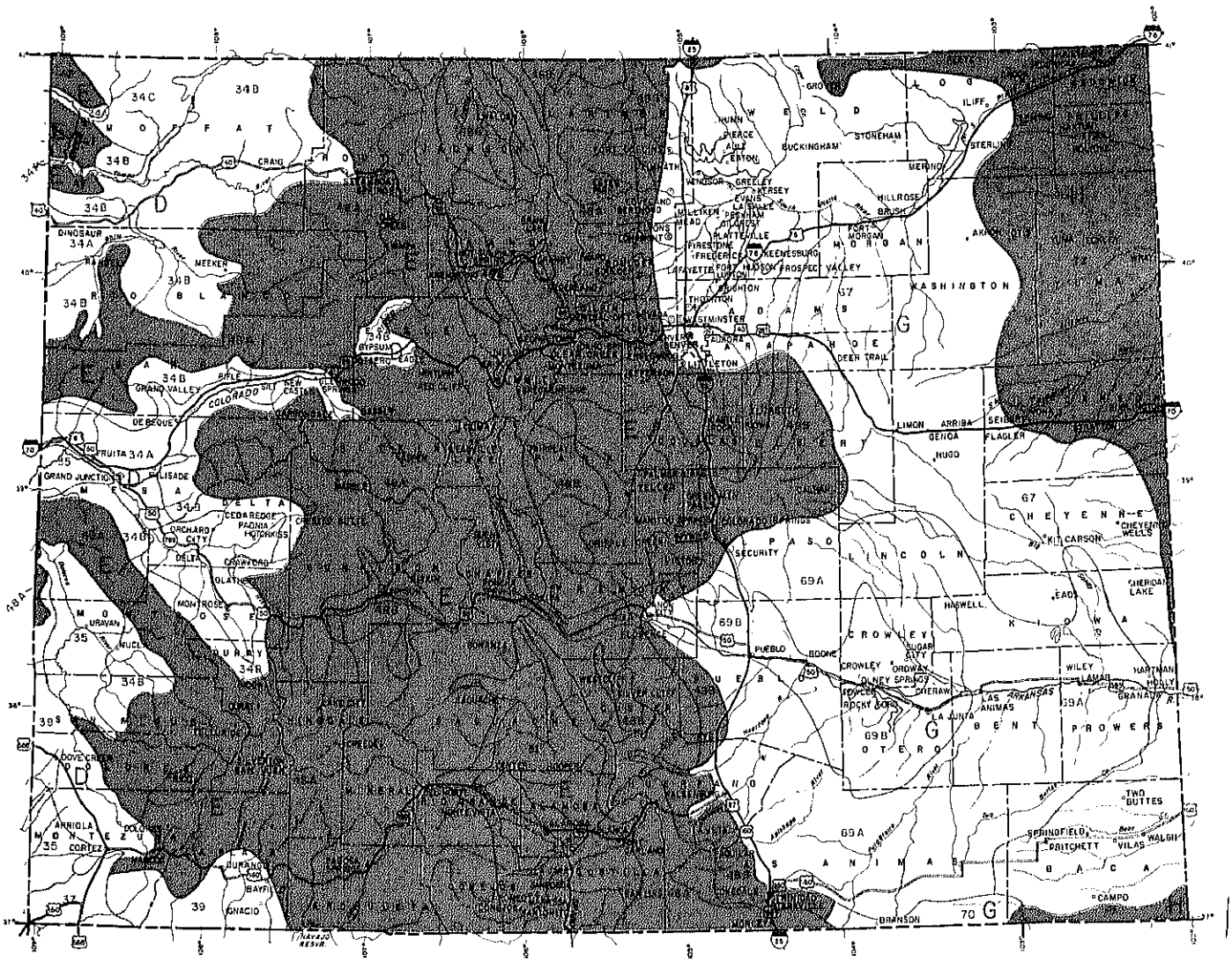


Volunteers contributed 2700 hours to conservation through the Colorado Earth Team in 1988. The Earth Team is a group of concerned citizens who are interested in learning more about soil and water conservation, earning valuable work experience and a permanent work record, and helping to conserve Colorado's natural resources.

SCS and soil conservation districts need volunteers with skills in conservation planning, computers, conservation education, soil mapping, tree and grass planting, office work, and many other disciplines. Anyone wanting to volunteer should call 1-800-THE-SOIL or contact your nearest soil conservation office.

The Boulder Valley Soil Conservation District and the Longmont SCS office were judged as Colorado's top Earth Team for 1988. Volunteers contributed over 300 hours to plant 1200 trees for a special wildlife habitat near Boulder's Mesa Reservoir. Many of the Earth Team members were from the Retired Senior Volunteers Program (RSVP). They designed and planted beautiful wildlife habitat which will attract deer, song birds, raptors, and also provide a new home for some uprooted prairie dogs. Many more hours will be donated in the future as senior citizens and soil conservation district members provide upkeep, design, and staffing for a conservation education park at the reservoir.

This and many other projects like it are solid testimony to the value of Colorado's Earth Team volunteers.



LAND RESOURCES REGIONS AND MAJOR LAND RESOURCES AREAS

D WESTERN RANGE AND IRRIGATION REGION

- 34A Central Desertic Basins
- 34B Central Desertic Mountains and Foothills
- 34C Central Cold Desertic Plateaus
- 35 Colorado and Green River Plateaus
- 37 San Juan River Valley Mesas and Plateaus
- 39 Arizona and New Mexico Mountains

F ROCKY MOUNTAIN AND FOREST REGION

- 47 Wasatch and Uinta Mountains
- 48A Southern Rocky Mountains
- 48B Southern Rocky Mountain Parks
- 49A Southern Rocky Mountain Foothills(Dry)
- 49B Southern Rocky Mountain Foothills
- 51 High Intermountain Valleys

G WESTERN GREAT PLAINS AND RANGE AND IRRIGATED REGION

- 67 Central High Plains
- 69A Upper Arkansas Valley Rolling Plains
- 69B Upper Arkansas Valley Rolling Plains(Dry)
- 70 Pecos-Canadian Plains and Valleys

H CENTRAL GREAT PLAINS WINTER WHEAT AND RANGE REGION

- 72 Central High Tableland
- 77 Southern High Plains

LAND RESOURCES REGIONS AND MAJOR LAND RESOURCE AREAS

COLORADO

APRIL 1983

10 0 10 20 30 40 50 60 MILES

Source:
Base map prepared by SCS, WTSC Carto Unit from USGS 1:1,000,000 Nat. Atlas.
Thematic detail compiled by state staff.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE REV. 4-83

M7-E-24033

CONSERVATION IN COLORADO PROGRESS REPORT FISCAL YEAR 1988

Progress Reporting Line	October 1987	October 1988
Soil Erosion		
Reduced on Cropland (code 901 — acres)	687,309	822,608
Reduced on Pastureland (code 902 — acres)	105,498	307,782
Reduced on Rangeland (code 903 — acres)	345,644	1,168,564
Water Conservation and Management		
Improved irrigation efficiency (code 449 — acres)	98,362	115,978
Salinity and sodicity		
Irrigated acres treated (code 942 — acres)	3,007	3,489
Supporting Inventories		
Soil Surveys (code 184 — acres)	1,050,997	1,520,251
Food Security Act Progress		
Cropland determinations with no highly erodible land (code 170 — acres)	14,282	1,501
Cropland determinations with highly erodible land (code 171 — acres)	1,496,804	6,560,317
Highly erodible cropland covered by an approved conservation plan (code 173 — acres)	399,071	5,070,688
Highly erodible cropland with conservation systems applied (code 172 — acres)	257,174	1,521,959
Wetland subject to conservation provisions (code 174 — acres)	14,529	18,246
Wetland converted before the act (code 175 — acres)	387	1,853
Service to Coloradoans		
Individuals and groups assisted (code 102 — nos.)	12,880	16,841
Individuals and groups applying conservation practices (code 106 — nos.)	4,084	5,747
Resource management systems planned (code 108 — acres)	1,475,789	2,400,318

Soil Conservation
Denver, Colorado
January, 1989

SPECIAL PROJECTS SAVE SOIL AND WATER

Yampa Erosion

The Yampa River Basin Erosion Study is being conducted to measure present snow melt erosion rates with predicted rates using erosion equations. Predicting water erosion in the Yampa River Basin is difficult due to the climate and the undulating land with varied slopes, slope lengths, and slope aspect. Ephemeral gully erosion is significant in the basin.

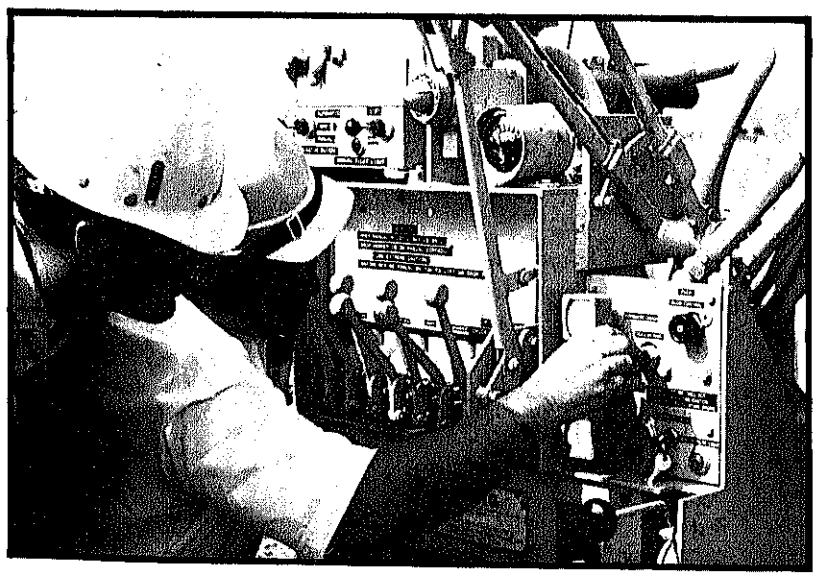
At the behest of the Colorado First and the Routt County Soil Conservation Districts, the Colorado State Soil Conservation Board requested SCS to conduct an erosion study of non-irrigated cropland within the Yampa River Basin. There is a question about spring snow melt being addressed in the sheet and rill erosion equation. There is also a need for more data to support the factors being used in the Wind Erosion Equation.

The study is underway with data expected to result in an update of the Field Office Technical Guide — improving factors in the Universal Soil Loss Equation and the Wind Erosion Equation.



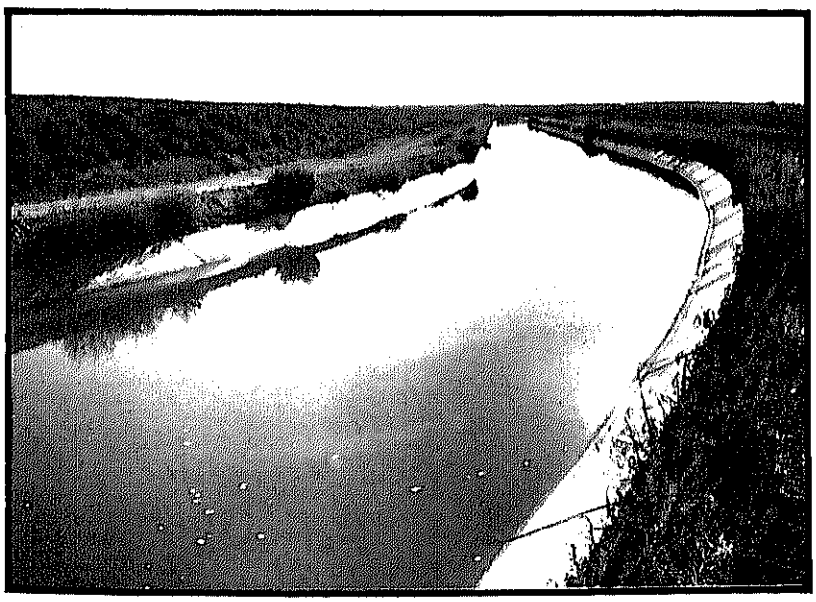
Shavano Watershed

The Shavano Valley Watershed Project, affecting 35,200 acres of land in Montrose County, was authorized for funding in 1986. The area has suffered problems with floodwater, erosion, and sediment damages that occur on agricultural land, county roads and bridges, irrigation systems, farmsteads, fences and utility lines. Interruption of irrigation systems alone has affected 21,550 acres. To combat this situation an extensive geologic investigation has been done of the foundation, borrow area and spillway locations. Design of structures will commence in 1989. If approved for construction SCS will contribute $2.8 million to the cost of the project.









North Delaney Butte Lake

The North Delaney Butte Lake Critical Area Treatment is in Jackson County 10 miles west of Walden in the Colorado Big Country RC&D Area. For many years water has been supplied to the lake from Wolfer Ditch. The water flowed from the ditch over sandy loam soils that eroded badly depositing large amounts of sediment in the lake. This excessive sedimentation was causing the loss of an extremely valuable sport fishery and the sole source of brown trout eggs for the State of Colorado. Because of the effect on trout, recreational fishing was down 40 percent at the lake.

To correct the problem the Colorado Big Country RC&D initiated a critical lake treatment on the lake constructing a pipeline to convey water to the lake, building an erosion control dam and reseeding the eroded areas. The project was completed in October at an estimated cost of $95,600. Seventy percent of the costs were borne by SCS. As a result, brown trout egg production will be insured for future generations of fishermen and the area beautified for tourists.

Grand Valley Salinity

Grand Valley is one of three areas in Colorado identified in the Colorado River Salinity Control Act as an area to carry out research and demonstration projects to control salinity in the Colorado River Basin. Lower Gunnison River and McElmo Creek complete the trio. These areas contribute significant salt loading to the river causing downstream salinity problems. Implementation of onfarm improvements is underway covering 66,000 acres in Grand Valley and 22,600 acres in Lower Gunnison. The total work accomplished thus far is approximately 198 miles of pipeline and 50 miles of ditch lining. Total off-farm lateral accomplishments for the project are 45 miles of pipelines and 11 miles of ditch lining.

SOIL CONSERVATION DISTRICTS . . . PARTNERS IN CONSERVATION

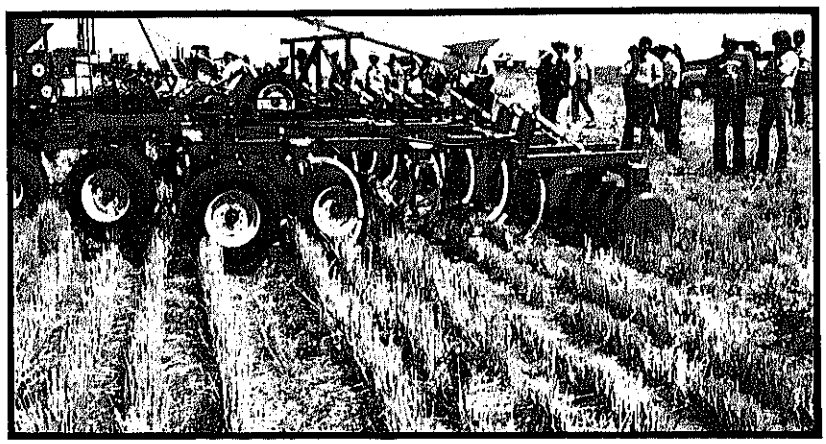
When soil conservation districts were formed in the late 1930's and 1940's, they were set up as units of local government, strictly non-political, voluntary movements. Their major function was to unify and deliver to local constituents the various programs that the United States Department of Agriculture had authorized.

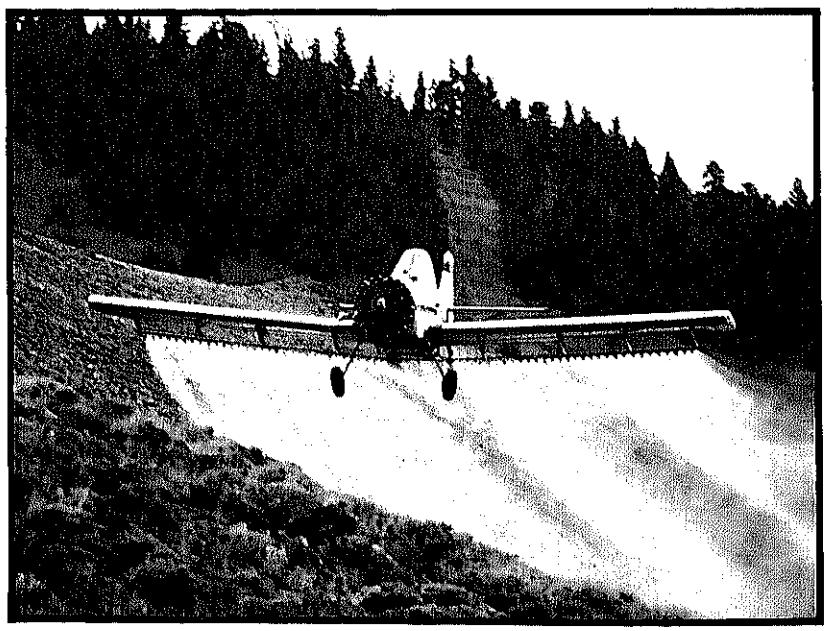
State law gave Districts authority, but little guidance. District officials volunteered their time, becoming mediators among the various cooperating agencies and helping to make technical matters more practical to farmers and ranchers.

Today, Colorado has 80 soil conservation districts, functioning independently, but working together through the Colorado Association of Soil Conservation Districts. They concern themselves with much more than assistance to landowners. Their programs are multi-faceted, dealing with all aspects of the environment and its natural resources. Still supervised by a board of volunteers, districts sponsor educational programs, work with schools and municipalities, and coordinate cooperative efforts among agencies, while continuing to stress wise use of resources. Because the United States feeds the world, district conservation efforts now have global implications.

As the role of soil conservation districts has diversified, they have found themselves working with new agencies and businesses, and with new interests. The success of these new partnerships, coupled with the old, will determine the success of soil conservation district programs in the future. The continuing evolution of district programs from the days of the Dust Bowl through the twentieth century indicates a survival instinct of this "grass roots" movement. The joining of this instinct with broad-ranged partnerships promises that the efforts of soil conservation districts will prosper in the coming decades.

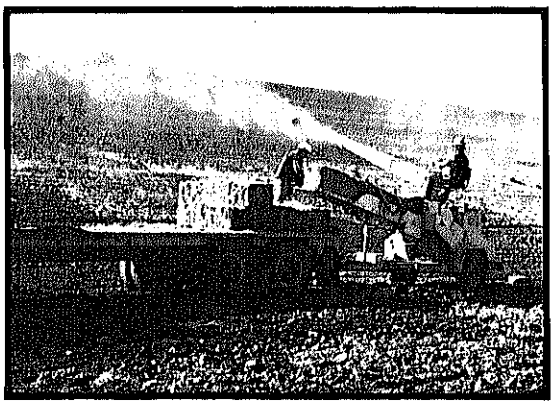






COLORADO STATE SOIL CONSERVATION BOARD EMPHASIZES WATER QUALITY, ENERGY CONSERVATION AND LIVING SNOW FENCES





The Colorado State Soil Conservation Board (CSSCB) revolves around three major activities — the Energy Conservation for Colorado Agriculture, the Living Snow Fence Program, and the Nonpoint Source Water Quality Task Force.

The Energy Conservation Program has completed its second irrigation season. The full program has six parts. Three of the portions are staffed by CSU professors and involve testing and information publications. The three areas in which the CSSCB is directly involved include the statewide Conservation Tillage Program in which 90,000 acres are established, with a savings of three gallons of fuel per acre for a total savings of 270,000 gallons per year.

The remaining two programs involve irrigation pump testing and irrigation water management. The program tests 300 pumps a year and the recommendations of the teams, if implemented by the operator, would realize 4,200,000 KWHs of energy savings in 1987 and each year thereafter. By the use of surge valves and gypsum blocks, the program has realized significant savings in water use and in energy savings to pump unnecessary water. Surge irrigation on 17,500 acres resulted in an annual savings of 364,702 KWHs of power annually. Initial figures indicate that with the aid of gypsum blocks some corn was raised producing about 185 bushels an acres with seven inches of irrigation water.

The Living Snow Fence Program has been in existence for several years. There are plantings still being maintained in Colorado. Our hope is to plant 25 more in 1989. The earliest plantings have grown to the point where they are catching snow and causing the State Highway Department and the county highway crews to spend less time and energy clearing the roads. The residents like it because, as one person said in Yuma County, last winter was the first year he could get out of his farmstead every day because of the living snow fence on his county road.

The final program in which the CSSCB has been spending time and effort is the Nonpoint Source Task Force of the Department of Health. In fulfilling the requirements of Section 319 of the Clean Water Act of 1986, the state was required to publish an Assessment of the Nonpoint Source Pollution and a Managemen' Pl-- to implement treatment. The assessment wa in April, 1988. The Management Plan will h in January 1989. The Tasl ing $300,000 for 1989 to ects in the state. The (demonstration project streambank erosion and gram to show the prac ment Practices to contr